National Water Reform

Productivity Commission

Local Government Association of Queensland

12 May 2017

The Local Government Association of Queensland

The Local Government Association of Queensland (LGAQ) is the peak body for local government in Queensland, and is the collective voice of local government on a range of issues. The LGAQ has been advising, supporting and representing local governments since 1896, allowing them to improve their operations and strengthen relationships with their communities. The LGAQ does this by connecting local governments to people and places that count; supporting their drive to innovate and improve service delivery through smart services and sustainable solutions; and delivering them the means to achieve community, professional and political excellence.

Scope of Inquiry

The LGAQ appreciates the opportunity to provide comment on the Productivity Commission's (the Commission) *National Water Reform Discussion Paper*. In preparing this submission, the LGAQ primarily consulted with its Water and Sewerage Advisory Group, as well as the Queensland Water Directorate (***qldwater***), which is the central technical advisory body for Queensland's urban water industry.

The Association acknowledges the value of submissions provided from individual Queensland local governments, which are best placed to provide advice about their individual circumstances. This response is therefore limited to providing a general overview of the issues relevant to Queensland local government.

Summary and Recommendations

Broadly, water reform has driven some improvement in the water industry, but there remains much to be done. A greater vision of future challenges and encouraging the means to deal with them is needed as a matter of priority. The focus on current water pricing and management arrangements only partially deals with the more fundamental problem of supplying a limited resource that will change in availability and use in the near future.

<u>Future Reform Priorities</u>

- Current water reform thinking needs to better incorporate the utilisation of the wealth of data, opportunities provided by technology, and an information savvy workforce that will drive reform of how we view and manage water resources.

<u>Property Rights</u>

- A coordinated investment program between the Federal and State Governments into modelling priority catchments and aquifers could have significant benefits for water management and planning, including the allocation of water rights and decisions related to water infrastructure development and maintenance by private and public water rights holders.

- Caution is needed in assuming that water entitlements should always be 'unbundled' from property rights.

- A holistic approach is required, one that not only takes account of water that is extracted from a catchment or aquifer, but also water 'deposits' – that is, water being returned to a catchment or an aquifer.

- Joint investment by the Federal and State Governments in modelling surface and groundwater systems could prove beneficial in determining the potential economic, social and environmental

benefits of making 'deposits' of recycled water into water systems.

Water Planning

- The LGAQ commends the Queensland Government on its efforts to provide a sensible planning framework for the sustainable use of water.
- There may be no perfect legislation or process that can guarantee a fair and reasonable decision about who may take water in circumstances where it is limited, but there should be clear criteria and a transparent decision-making process.
- Investigating the ability to reduce or remove existing water allocations based a revised understanding of water use within a catchment is likely to be necessary for long-term adjustments to water needs.
- Any process that reduces or removes a water allocation will come with political, economic, and social consequences. Thus, a clear process that aligns with community expectations about how this should occur is essential.
- Releasing stored water when appropriate is necessary to ensure community development. Disclosing the timelines and triggers for the release of unallocated water would assist in more effective strategic planning for communities and businesses.
- While there is always scope to improve the water planning process, the LGAQ is satisfied that the recent reform of water planning has improved the process.
- Generally, there is a good process for reviewing water plans in Queensland
- In order to improve how water plans deal with future climate impacts, consideration of climate effects should occur at all scales. Each scale will require different data and information to provide the appropriate knowledge base upon which to make decisions about allocation and requirements for the environment and public benefit.
- Queensland local governments are proactively responding to shifts in climate, and this work should be incorporated into water planning activities.
- The LGAQ strongly encourages the Productivity Commission to engage with Indigenous communities for their views in regards to water management.
- Water quality is an important aspect of a water allocation that will have impacts on its use. Thus, greater consideration of water quality in planning arrangements should be encouraged.

Water trading

- There is a limited scope for local government participation in water markets, but one that should be considered to improve the efficient use of water.

Rural water services

- Local governments play an ancillary role in rural water services, but in areas where irrigation is a large part of the community they are likely to be affected by decisions about the management of these services.
- Independent economic regulators can play a role in ensuring an objective and balanced view of water pricing, if they are allowed to do so without unnecessary limitations or exclusions in the scope of their review.

Urban water services

- There would be an immediate and substantial increase in efficiency if Federal and State government agencies better coordinated their interactions with local government water providers in Queensland.

- Funding arrangements should provide incentives for efficient operations and management. As interested stakeholders and partners in urban water infrastructure, the Federal and State governments should review and reform their funding to local governments in Queensland.

- Encouraging innovation in urban water services will improve their efficiency, but will require better management of the financial and reputational risk, adopting a more flexible legislative framework that is mindful of innovation, and attracting an innovative workforce.

- While local governments have not been the target of recent economic regulation, the LGAQ questions the value of such regulation when existing pressures already constrain costs and prices.

- The LGAQ questions the aim of increasing competition for urban water services, when the pricing of services in many areas are already artificially low through social and political pressures. Greater clarity about the drivers for competition and the outcomes of promoting it for urban water are needed.

- Given the current regulatory framework set against the backdrop of increasing water quality standards, the LGAQ believes that it is becoming impossible for any provider of water and wastewater services to have services that are completely compliant with all the relevant regulations. For regional, remote, and Indigenous communities the challenge is growing, and the 'zero-risk' mentality of regulation must be reassessed.

- Regulations for urban water providers are often not cost effective or targeted, and there should be greater consideration of the effectiveness of present arrangements for policy making and regulation.

Local Government Policy

Given LGAQ is the corporate entity representing all Queensland local governments, the Association seeks to identify issues of statewide concern to local government and to arrive at a consensus view as to local government's position on the issues identified. LGAQ's *Policy Statement 2016*[1] is a definitive statement of the collective voice of local government in Queensland. This statement identifies the position of local government in relation to a number of key issues.

To give the Commission a better understanding of the key issues and formal policy position as they relate to water, relevant extracts from the LGAQ's *Policy Statement* are included as Appendix 1.

Local government response to the discussion paper

The LGAQ acknowledges the National Productivity Commission's role in reviewing the National Water Initiative as per the Commonwealth Water Act. While the views of the LGAQ have not changed in regards to its previous submission on water reform to the Productivity Commission or the former National Water Commission, the following provides the perspective of Queensland local government in regards to the current inquiry.

[1] Available at http://www.lgaq.asn.au/documents/10136/48c73637-4038-46e1-91a0-535a16e367dd

While an additional opportunity to comment on the Productivity Commission's current inquiry will be made following the release of the draft report, the LGAQ notes that the timeframes to provide comments were not sufficient to provide for adequate consultation. Although an extension was given to the LGAQ in light of the impact of Cyclone Debbie on Queensland local governments, a period greater than 4 weeks is needed.

Local government as a stakeholder in Queensland

Local government is the tier of government in Australia closest to the community, which owns and maintains a significant portion of infrastructure, provides employment, and many community services in Queensland. According to the ABS[2] the total value of non-financial assets for both State and Local Governments in 2014-15 was $267.03 billion. Local governments' portion of the total value was $93.82 billion (35.1%), compared to $44.3 billion (37.4%) in 2004-05. Local government assets include a range of infrastructure, including local roads, gas supply and reticulation networks, drinking water and sewage treatment systems, stormwater management, and parks – among others.

Of particular relevance to the current inquiry are the urban water and wastewater services that are predominantly the purview of local governments in Queensland. Local governments are either registered water providers or are shareholders in statutory authorities that deliver urban water services that service more than 350 communities. Hence, local government is typically responsible for the delivery of potable water and wastewater services to all of Queensland's communities where they are provided.

Local governments in Queensland either source the water for their communities directly or secure it under contract from a bulk water provider. Within Queensland, there are several state-owned bulk water authorities: Seqwater, SunWater, Gladstone Area Water Board, Mt Isa Water Board, and the Dumaresq-Barwon Border Rivers Commission. Thus, for 28 of the 77 local governments there is a dependence on a State-owned entity to enable to the provision of urban water (see Figure 1).

[2] 5512.0 - Government Finance Statistics, Australia, 2014-15, Latest ISSUE Released at 11:30 AM (CANBERRA TIME) 26/04/2016

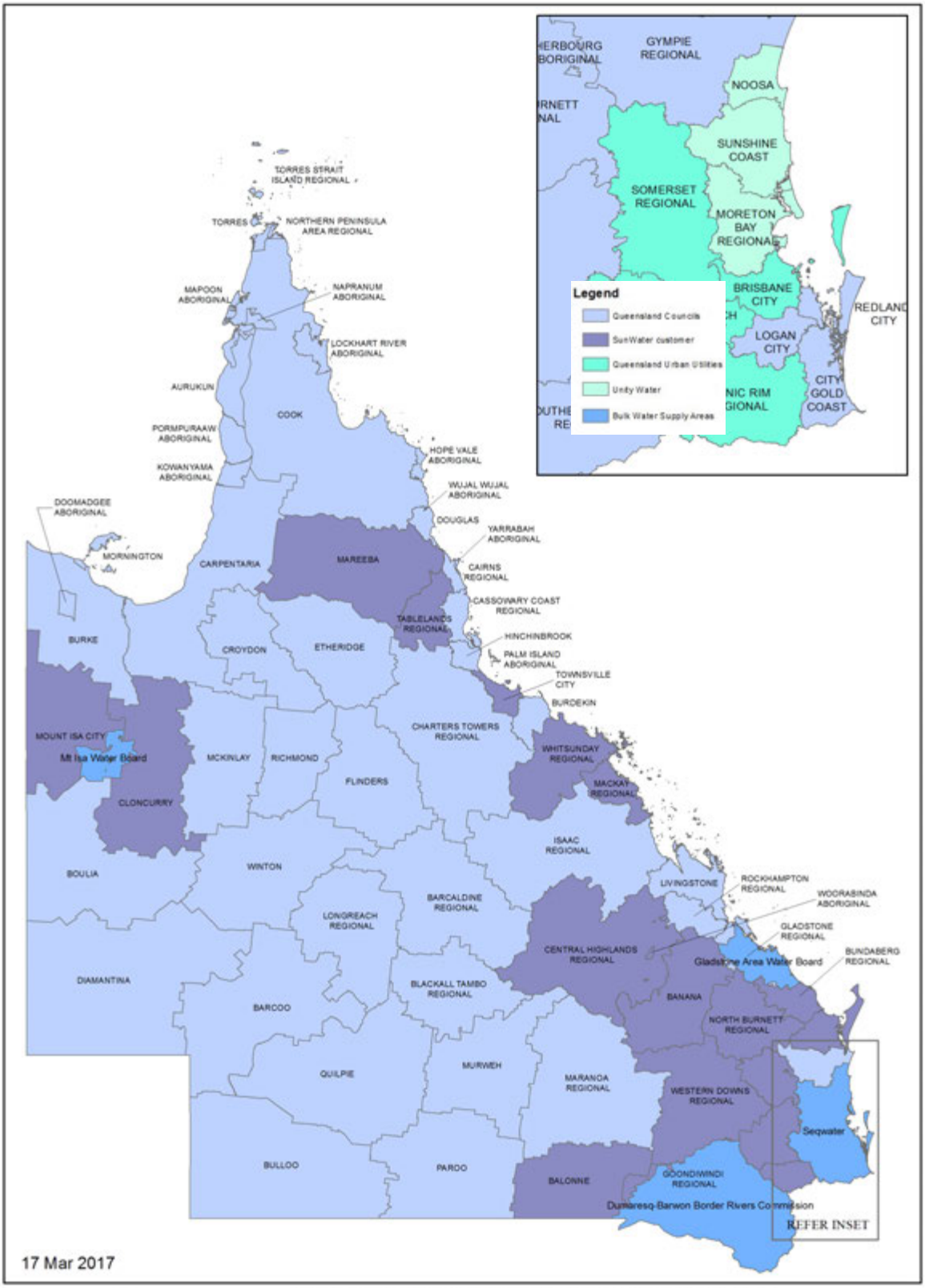

Figure 1 - Map of Queensland Urban Water Entities

Australia's water policy reform to date

What have been the key benefits of water sector reform to date? (pg. 5)

Australia's water sector reform has had many benefits. Most importantly, the National Water Initiative has established a national vision, defined principles and objectives, and shaped a nationally consistent framework for discussion about water services. Acknowledging that improvement can only be measured if the goal is clearly articulated, water reform to date has attempted to do this. While there remains a good deal of work to clarify that vision and make it more robust, future efforts will benefit by building on the one already created. Importantly, water reform has created an expectation that water services providers must continue to improve in their management and operational responsibilities.

Another benefit of water reform is the cooperative approach that has been adopted in its implementation. Given the broad dependency on water services from all aspects of Australian life, there are many stakeholders with a profound interest in how these services are managed. As both a water service provider and an interested stakeholder in the welfare of Queensland's communities, local government is a genuine partner in the Australian government system (see Partners in Government Agreement[3] for an example of the cooperative approach between the Queensland Government and local government.) Having the National Water Initiative formalised through the Council of Australian Governments (COAG) underscores the need to work together to solve the difficult challenges ahead for the water industry.

Water reform has also raised the profile of water, by increasing the frequency of discussion as well as agreed actions to encourage its proper management. Globally the provision of potable water is a service that is not only taken for granted by communities, but also the maintenance of these services is often neglected because they are not readily visible to decision makers. Through the National Water Initiative, the importance of a well-functioning water system has been clearly recognised. Additionally, regular reviews of water reform, such as the current inquiry, help to ensure that water resources and services remains on the agenda.

As something of a mixed benefit, water reform has led to greater certainty for water providers. Reform has encouraged the revision of Federal and State legislation to describe more explicitly the requirements for management and operation of water services, which have at times been excessive. Nonetheless, the certainty of requirements is positive for water providers who must balance the expectations of multiple stakeholders that can conflict or misdirect efforts towards impossible deliverables. The surety of legislative requirements enables water service providers to focus on important tasks and strategic directions, as well as provide a means to respond to unreasonable pressures from communities and other stakeholders.

The LGAQ continues to support water reform where it is implemented in a consultative and considered manner. To date, water reform has brought much needed improvement to the water industry, but much remains to be done – such as ensuring the scope of reform is mindful that not all water services in Australia will be sustainable (e.g. rural and remote services are operated in many instances as a community service.)

[3] Partners in Government Agreement, 2015. Available from https://www.dilgp.qld.gov.au/resources/policy/local-government/partners-in-government-agreement-2015.pdf

Assessing progress

The Commission welcomes feedback on:

- data and information sources that might be useful for assessing progress

There are several new sources of data the Commission may wish to review. In regards to urban water, the Queensland Government now requires annual reporting on key performance indicators for all registered water providers. While Queensland water providers have historically contributed to the National Performance Report for water utilities[4], the framework is voluntary and does not consider water providers with fewer than 10,000 connections. In contrast, the Queensland Government reporting provides information on all registered water providers regardless of size. More information about the reporting and previous reports can be found at the Department of Energy and Water Supply's (DEWS) website: https://www.dews.qld.gov.au/water/regulation/performance

There are several reports produced by ***qldwater***[5] that are also useful. Prior to the creation of the current DEWS reporting framework, ***qldwater*** produced its own benchmarking reports based on local government water providers that volunteered to participate in the reporting. The number of participating councils has increased every year. These reports have been published annually since 2011, and can be found at their website: http://www.qldwater.com.au/reporting A biannual summary of Queensland's urban water workforce has also been produced by ***qldwater***, and the reports can be found at http://www.qldwater.com.au/Skills_Workforce_Resources_and_Publications

Another source of information is the collection of reports produced through the Queensland Water Regional Alliance Program (QWRAP). This program, discussed later in this submission, encourages local government water providers to examine alternative governance arrangements – including projects and activities that have immediate benefits outside of reformed governance arrangements. Two of the reports may be of particular interest to the Commission: *Reform of Water and Sewerage Utilities: Review of Sustainable Models* and *Cost Drivers for Queensland Local Government Water and Sewerage Service Providers*. Both of these papers can be found at the QWRAP website: http://www.qldwater.com.au/QWRAP

The Queensland Treasury Corporation (QTC) has developed several tools as part of their financial risk management advisory services. The Project Decision Framework[6] is a well-regarded tool that can be used to guide water service providers in their decisions on capital infrastructure and operations. The QTC has also developed WISDOM, "…an integrated strategic water demands option model that was specifically developed for local governments who manage their own water assets or are planning for significant future network upgrades. The model is designed to help local governments optimise existing assets and new water infrastructure investment."

The Queensland Government, through the Department of Infrastructure, Local Government and Planning, has published its *State Infrastructure Plan*[7]. This includes both a strategic framework (Part A), and a list of priority projects (Part B). The planning, prioritisation and delivery framework (pg. 41 of Part A) may be of value to the Commission in terms of the Queensland Government's view on capital infrastructure.

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[4] Urban national performance report, Bureau of Meteorology. Available from http://www.bom.gov.au/water/npr/

[5] The Queensland Water Directorate (***qldwater***) is the central advisory body within Queensland's urban water industry representing the majority of the State's Water Service Providers, from small local governments up to major utilities including Queensland Urban Utilities and Unitywater. ***qldwater*** works with its members to provide safe, secure and sustainable urban water services to Queensland communities.

[6] Queensland Treasury Corporation presentation to Far North Queensland Regional Organisation of Council, 10 Feb 2016. http://www.fnqroc.qld.gov.au/files/media/original/003/f4d/334/c67/QTC%20Project%20Decision%20Framework%20Presentation%20-%20FNQROC%2010%20February%202016.pdf

[7] State Infrastructure Plan, Queensland Government, 2016. http://www.dilgp.qld.gov.au/infrastructure/state-infrastructure-plan.html

The Commission welcomes feedback on:

- areas where NWI reforms are stalled or delayed and consequences of that (for example, have there been costs incurred due to these delays?)
- other unfinished business of the NWI.

Fair progress has been made on some of the National Water Initiatives in Queensland. However, as described further below (e.g. climate change and innovation), the consideration of future conditions are still not well incorporated into existing water planning frameworks or discussion about water management. The subdued progress on forward thinking is not unexpected – but a transition towards such thinking is imperative to place Australia in a positive position in regards to water resources.

For local governments this is increasingly apparent in the financial costs to support a network of infrastructure that will be appropriate for future needs. Decisions about capital investment of water and sewerage infrastructure are often the largest single decision made by local governments, with social and economic consequences that last for generations - urban water infrastructure can function for periods from 80-100 years. These capital decisions are compounded by factors like urban renewal, population growth or decline, and changing technology, community expectations, and climate. As rapid and major investment in urban water infrastructure was made post World War II (60-70 years ago). Consequently major capital decisions to replace legacy infrastructure are being made now and need to be informed by planning frameworks that look forward not backward.

While water plans, registers, trading markets, and pricing are all relevant for contemporaneous water issues, they are not providing a future vision and the steps by which to achieve that vision for the Australia of 2040 and beyond. Each of the National Water Initiatives commitments are all informed, and confined, by the limitations of historical data and current demands. Greater efforts need to be made to find mechanisms and solutions that will position water resources and those that manage them to continue to support communities and provide for the needs of everyone that depends on them.

The LGAQ believes that a clear national vision of water resource use is needed, and that without a body such as the National Water Commission the focus and progress on improving the use of water resources will be limited. Regular reviews such as the current Productivity Commission Inquiry are beneficial, but will never achieve the dynamic and progressive system of water management that is needed. Stronger support and commitments are needed to ensure that water resources are available now and into the future.

Developing future reform priorities

The Commission welcomes feedback on:

- the preliminary framework (table 1)
- priority areas for water reform
- key contemporary and future drivers of water reform.

The preliminary framework appears sufficient to assess the progress of water reform, but implementation of the Framework would need strong, clear governance to set and enforce market rules – and would require a multi-level whole of government approach with a loosening of political control. A clear process for allocation of water is essential in ensuring that valuable and limited water resources are used effectively and support those activities that are valued by communities. Further, appropriate standards for water management will assist in guiding water providers and managers towards best practices. However, emphasis on consistency may discourage fit-for-purpose approaches to water resource use or management, and the LGAQ would encourage caution with any approach that seeks consistency for the sake of easier central administration and oversight of disparate networks and services.

Again, the LGAQ would encourage the Commission to consider the ability of the framework to consider and prepare for future conditions. There are likely to be substantial costs in implementing monitoring networks, markets, upgrading infrastructure, and incorporating technological solutions. Meeting current needs will simply be insufficient in the future as water resources availability becomes more variable and greater demands are placed on them.

One key area of water reform that should be examined is the changing nature of water resource management. With the deluge of data that is now available and being collected across all industries, the effective use of this data can be a powerful tool in management activities. Mackay Regional Council, in its award-winning automated water meter program[8], has not only reduced water demand by more than 10%, but has also delayed major capital investment of more than $100M over the next 10 years. Key to this accomplishment was the considered collection and use of large data sets about water use. The potential of large data to inform water management is essential to consider now, as it can have immediate impacts and affect legacy decisions.

Related to the potential of big data are the skills and training necessary to support the efforts to implement and benefit from the technology that enables it. Conventional water management, services, and regulation must adapt to a data-rich and technology based environment. As millennials become a substantial part of the workforce, as much as 50% by 2020[9], they will bring a different set of skills and attitudes about the workplace.

Thus, utilising the wealth of data, opportunities provided by technology, and an information savvy workforce will drive reform of how we view and manage water resources. These themes are not captured in current water reform thinking.

[8] Automatic meter reading, the way of the future, Mackay Regional Council. Available from: http://www.mackay.qld.gov.au/about_council/news_and_media/media_releases/2012_media_releases/automatic_meter_reading,_the_way_of_the_future

[9] The 5 Trends Shaping the Future of Work, Jacob Morgan. Available from: https://www.youtube.com/watch?v=LrhmHbDLM8o

Property rights

What further actions are needed to achieve clear and secure property rights?

One of the difficulties in regulating water resources is the often poor water models available for analysing surface and groundwater systems and the potential impacts of current and projected water extraction by rights holders. An exception to this observation is the mapping and assessment of groundwater systems undertaken by the Office of Groundwater Impact Assessment in relation to the petroleum and (very recently) mining sectors. The quality of this modelling provides an excellent precedent for a wider examination of the impacts of water use in priority groundwater systems.

The LGAQ believes that increased investment in data gathering and modelling of priority catchments and aquifers would result in an improved understanding of the impacts of current and proposed water rights on the long-term sustainability of water systems and the regional economies and communities that rely on them. Such modelling could also assess the opportunities and potential impacts of interventions in water systems that would improve their sustainability and, consequently, the security of water rights. Such interventions could include, for example, the costs and benefits of making 'deposits' into water systems through recycled water and other methods (this issue is discussed further in relation to 'new water sources').

The LGAQ believes that a coordinated investment program between the Federal and State Governments into modelling priority catchments and aquifers could have significant benefits for water management and planning, including the allocation of water rights and decisions related to water infrastructure development and maintenance by private and public water rights holders.

What steps have been take – or should be taken to:

- Unbundle entitlements in unregulated surface water and groundwater systems?
- Incorporate all water uses (for example, the mining industry) within the one planning framework?

The LGAQ believes that caution is needed in assuming that water entitlements should always be 'unbundled' from property rights. 'Unbundling' could allow the consolidation of water rights in a way that freezes smaller landholders out of a water market. This could lead to the businesses of these landholders becoming unviable and the departure of residents of a region, resulting in regional depopulation and a vicious cycle of adverse economic and social impacts as more businesses become unviable and residents leave.

The LGAQ is not opposed to water markets; however, we believe that water markets need to be regulated in a way that supports the economic and social sustainability of a region as a whole. In some circumstances, the best method of ensuring equitable access to water may be to continue to tie water rights to property rights, thereby ensuring the viability of landholders and their communities. Where water rights are not related to property rights, water markets need to be regulated to prevent a monopoly (or oligopoly) over water that freezes out smaller landholders and businesses. In this context, equitable access to water needs to be a factor in water planning processes, water allocation rights and water market rules.

What new water sources should be brought into the water entitlement process and why?

In considering water property rights, the LGAQ believes that a holistic approach is required, one that not only takes account of water that is extracted from a catchment or aquifer, but also water 'deposits' – that is, water being returned to a catchment or an aquifer.

The following are examples of 'deposits' being made into water systems:

- The transfer of water between aquifers by a local council in order to recharge an aquifer used for town drinking water.
- Recycled wastewater that is used for agricultural and industrial purposes.
- Water produced as part of the production of Coal Seam Gas (CSG) that is treated and sold for agricultural use.

Recycled wastewater is one water source that could be brought into the water entitlement process, with the following potential benefits:

- Increase the attraction of investing in wastewater recycling infrastructure, as there is a potential return on investment through the sale of water rights.
- Support economic growth, as recycled water would be reliable in both quantity and quality thereby supporting long-term planning by water-dependent businesses.
- Decrease pressure on catchments and aquifers currently under heavy use by providing an alternative source of water for industrial and agricultural uses. This has been one of the major benefits of CSG-produced water being sold to landholders for agricultural use.
- Notwithstanding, in most places recycled water will be a minor source that is unlikely to meet the need of agriculture and industrial sectors.

As indicated previously, **the LGAQ believes that joint investment by the Federal and State Governments in modelling surface and groundwater systems could prove beneficial in determining the potential economic, social and environmental benefits of making 'deposits' of recycled water into water systems.**

Are current approaches to water rights compliance and enforcement fit-for-purpose?

The LGAQ does not have a view on this issue as local government does not undertake compliance activities and is not subject to enforcement activities (due to the fact that councils stay within their water allocation and use allocated water for its intended purpose, i.e. urban water).

Water planning

Local governments are involved in water planning as their water allocations for community and urban water services are considered in the process. The LGAQ regularly engages on water planning matters directly with the Department of Natural Resources and Mines (DNRM), and participates in its Water Engagement Forum - an excellent example of stakeholder engagement. Further, the Department of Energy and Water Supply (DEWS) cooperates with local governments in the Regional Water Supply Security Assessment Program[10]. Queensland has a well-developed water planning framework, and the DNRM makes reasonable attempts to engage well with stakeholders.

The LGAQ commends the Queensland Government on its efforts to provide a sensible planning framework for the sustainable use of water.

What are the key areas of water planning where further progress is required to achieve the objectives and outcomes of the NWI?

The LGAQ proposes three areas where further progress is needed:

1. Objective and transparent decisions on water allocations

In catchments where the water demand does not exceed the water that is available, the decision to issue water licenses or entitlements is innocuous. However, increasingly there are catchments where the demand exceeds the supply and such decisions are likely to create a disadvantage to some stakeholders. Water planning in Queensland attempts to balance the demand of all water users, including the environment, but ultimately the final decision rests with the Minister (*Water Act 2000*, s.47).

Fortunately, local governments have not yet been limited in their ability to provide urban water to Queensland communities. However, there are currently no provisions or guidelines the explicitly state that urban water will have priority when water becomes limited, though there is an implied understanding that this is the case. Statutory guidelines or another similar instrument that clearly explains how different water uses are considered and prioritised in the decision-making would be beneficial.

There may be no perfect legislation or process that can guarantee a fair and reasonable decision about who may take water in circumstances where it is limited, but there should be clear criteria and a transparent decision-making process.

2. Dealing with over allocation

The *Water Regulation 2016* has provisions for announced allocations (s. 29), which reduces the percentage of the nominal entitlement for a water year based on the predicted availability of water. This mechanism is essential in dealing with the variability year-to-year of water resources that is inevitable in Queensland. However, this mechanism does not address long-term competition for water resources that will result with growing populations or the creation of industries that increase the demand for water.

Investigating the ability to reduce or remove existing water allocations based a revised understanding of water use within a catchment is likely to be necessary for long-term adjustments to water needs.

[10] Water supply security assessments, Queensland Government. Available from https://www.dews.qld.gov.au/water/supply/security/wssa

The historic allocation and use of water may not be appropriate in the future, where greater efficiencies and changing practices may reasonably reduce the amount of water needed to perform the same service. Further, allocations that provide a buffer beyond current use (i.e. sleeper licenses), may tie up water that could be provided for other higher value uses. Adjusting these allocations to lower levels, that still meet the current needs of the entitlement holder, could be needed to ensure sustainable water use within a catchment.

The LGAQ acknowledges that any process that reduces or removes a water allocation will come with political, economic, and social consequences. Thus, a clear process that aligns with community expectations about how this should occur is essential.

3. The process for releasing unallocated water

Unallocated water[11] is typically released through a fixed-price or tender process in Queensland. In previous tenders the Queensland Government has established an undisclosed reserve price, that lead to a failure to release any water. In other words, all tendered prices fell below the reserve price. After reviewing the policy, the Queensland Government now discloses the reserve price and has had more success in the process.

Notwithstanding the challenges in the tender process, the timing of the release of unallocated water appears arbitrary. While local governments do not typically need to tender for unallocated water, as their allocations are considered prior to the tender process, the 'random' release of water does have an impact on community development. Better communication of the schedule, if know, or the triggers for the release of unallocated water is needed.

Releasing stored water when appropriate is necessary to ensure community development. Disclosing the timelines and triggers for the release of unallocated water would assist in more effective strategic planning for communities and businesses.

Is there scope to streamline water planning processes to reduce unnecessary costs on planners and participants?

The 2015-16 reforms[12] to current legislation, the *Water Act 2000*, have made significant improvements to streamlining the water planning process. The changes removed unnecessary public consultation for simple changes to water entitlements (e.g. administrative dealings), which came with considerable expense. In regards to the planning process itself, the Queensland Government states, "*A new water planning framework is now in place that provides a simpler, more responsive approach so that water planning is more adaptable to changes in community water needs and expectations, innovative solutions to water supplies, and new science.*[7]"

While there is always scope to improve the water planning process, the LGAQ is satisfied that the recent reform of water planning has improved the process.

[11] Unallocated water, Queensland Government. Available from: https://www.dnrm.qld.gov.au/water/catchments-planning/unallocated-water

[12] Changes to water legislation, Queensland Government. Available from: https://www.dnrm.qld.gov.au/water/catchments-planning/water-reform

Are processes for reviewing water plans sufficiently robust, transparent, open, and timely?

Generally, there is a good process for reviewing water plans in Queensland[13]. Current legislation, the *Water Act 2000*, requires a review of the water plans every 5 years and/or 10 years and prescribes public consultation as part of the review (s.46). The DNRM communicates well with stakeholders about the reviews, and conducts regional workshops to gather community feedback about the reviews. Acknowledging that often only those with grievances or a vested interest attend the workshops or make submissions into the review, the process and opportunity to provide input into the plans is fair and reasonable.

Is there scope to improve how water plans deal with long term shifts in climate affecting resource availability? Are there recent examples of leading practice?

In short, yes. Queensland has always been a land of extremes, with extreme weather events occurring more often than other Australian states or territories. The Bureau of Meteorology records since the 1800s show that, on average, a 'severe' drought has occurred in Australia once every 18 years[14] and 'notable' floods have occurred in Queensland once every 16 years[15]. However, since 1974 floods have occurred in Queensland on average every two to three years[16]. Since 1858, there have been 207 cyclones, or an average of 4.7 each year[17].

Across most of Queensland the primary implications to water planning and management of climate change will be an overall reduction in annual rainfall totals, but an increased intensity of rainfall events. There will be longer dry periods (including longer droughts), reducing overall soil moisture and increasing evaporation, followed by heavy downpours and flash flooding. Cyclones are predicted to be less frequent, track further south and become more intense, resulting in the large-scale flooding associated with an overland tropical low.

Given the backdrop of extreme weather, the norm for Queensland water planning accounts for these events. Water resource plans review and incorporate past climate data in their assessment of water availability to inform allocations. However, these work to inform these plans has historically been backward looking, and do not fully account for future predictions. The LGAQ cannot comment on the suitability of current climate prediction models, but supports better integration of relevant models with water planning activities.

The LGAQ believes that in order to improve how water plans deal with future climate impacts, consideration of climate effects should occur at all scales (see Table 1). Each scale will require different data and information to provide the appropriate knowledge base upon which to make decisions about allocation and requirements for the environment and public benefit.

[13] The Planning Process, Queensland Government. Available from: https://www.dnrm.qld.gov.au/water/catchments-planning/planning-process
[14] Australian Bureau of Statistics, Drought in Australia. Available from: http://www.abs.gov.au/Ausstats/abs@.nsf/0/068f13bccd03f27bca2569de001f1072?OpenDocument
[15] Floods in Australia. Available from: https://en.wikipedia.org/wiki/Floods_in_Australia
[16] Australian Disaster Resilience Knowledge Hub. Available from: https://www.emknowledge.org.au/disaster-information/
[17] Tropical Cyclones in Queensland. Bureau of Meteorology. Available from: http://www.bom.gov.au/cyclone/about/eastern.shtml#history

Table 1 – Consideration of climate effects at various scales

Scale	Inputs:	Outputs:
Regional	Regional scale dams, integrated water grids e.g. SEQ water grid	Regional demand modelling
Catchment	Catchment rainfall averages, desalination plants, groundwater, dam storage capacities	Demand predictions based on land use types and population (current and projected), environmental flow requirements, landscape groundwater requirements.
Local	Property level rainwater capture (dams/tanks), groundwater, reservoir storage capacities	Supply planning, demand reduction activities/programs

The Queensland Government has recently completed work to downscale projections for future extreme events that will enable an understanding of future trends for extremes such as heatwave, drought, cyclones and tropical lows and flood.

Further work will be required to adapt this understanding into various models – particularly flood and drought – and into tools that can inform how evaporation rates are likely to change, impacts of soil moisture loss on dam catchments and groundwater levels.

The LGAQ is working with local governments to increase their awareness of future climate changes and their implications to local government operations and their capability to respond. This work is facilitated through the Queensland Climate Resilient Councils program[18], which is being delivered by the LGAQ and funded by the Queensland Department of Environment and Heritage Protection as part of their Queensland Climate Adaptation Strategy.

The program assists local government in preparing for the most common impacts to water planning and management:

- Increasing environmental and public benefit requirements of water over time (though peaks and troughs will occur throughout)
- Community pressure on water storage infrastructure to double as flood mitigation measures
- Increasing evaporation rates at open dam storages

Local governments are encouraged to explore the impact of potential responses to increasing dry periods and drought through options such as property-level water capture and water recycling. This has the potential to act as a disrupter to the water planning and management system not dissimilar to solar panels on rooftops, with both positive and negative outcomes. This improved understanding would provide valuable feedback into the existing water planning framework in Queensland to provide more reliable information on water allocations.

Queensland local governments are proactively responding to shifts in climate, and this work should be incorporated into water planning activities.

[18] Queensland Climate Resilient Councils, Local Government Association of Queensland. Available from: http://qcrc.lgaq.asn.au

Are current water entitlement and planning frameworks conducive to investor confidence, facilitating investment in major new infrastructure (such as in northern Australia), while managing risks to the supply security of existing water users?

The LGAQ is unable to comment on investor confidence, but believes that the current water planning framework should be conducive to such confidence. Although the frameworks provide certainty in the allocation process, the availability of water is dependent on climate, which is not certain. The latter may be more of a factor in investor confidence.

The understanding of water resources in Queensland is constantly improving, and the Queensland Government is better placed than in the past to identify where new infrastructure is needed. However, non-infrastructure solutions such as demand management or water efficiency programs should be well considered before major capital investments are made.

In 2015, the Queensland Government, through the Department of Energy and Water Supply began a program of assessing urban water supply security. The Regional Water Supply Security Assessment program[19] evaluates the capacity of existing water supplies to meet the demands of future populations of regional urban centres. This program, co-branded with local governments, describes the water supply security risk and enables informed strategic planning for water infrastructure. This program is not yet linked to the water planning framework, but inter-agency meetings have occurred to raise awareness of the work.

How can the interests and needs of Indigenous people be better accommodated and represented in water planning processes?

The LGAQ strongly supports the inclusion of Indigenous people in water planning. In Queensland this is occurring to some extent, as Indigenous water needs are referenced specifically in several Queensland water plans. In addition, there is an Aboriginal working group for the purposes of implementing the Murray-Darling Basin plan facilitated by DNRM.

Queensland has 17 Indigenous local governments, each of which have both a community (i.e. urban water) and cultural interest in water planning. The LGAQ helps to facilitate their interests through the Indigenous Leaders Forum, which meets twice a year to identify common concerns, prioritise common issues, identify remedial strategies, and agree upon implementation initiatives. Policies about water are likely to be considered in the future forums.

Queensland local government recognises the importance of the culture and heritage of Aboriginal and Torres Strait Islander people of Australia, and supports the recognition, protection and conservation of their cultural heritage. There should be genuine and collaborative partnerships between the Federal and State Governments and representatives of Indigenous communities to improve their economic and social wellbeing. T**he LGAQ strongly encourages the Productivity Commission to engage with Indigenous communities for their views in regards to water management.**

What steps have been taken — or should be taken — to integrate water quality objectives into water planning arrangements?

As most surface and groundwater allocations are based primarily on the point at which the water is

[19] Water supply security assessments, Queensland Government. Available from: https://www.dews.qld.gov.au/water/supply/security/wssa

extracted, water quality is typically an ancillary consideration to the allocation. The LGAQ is unaware of any mechanism by why an application can be made for an allocation of a specific water quality. Further, the value of a water allocation may differ depending on its water quality, which does not appear to factor into the pricing of water tenders offered by the Queensland Government.

Consequently, water quality is only partially integrated into planning arrangements in Queensland, mainly in regards to groundwater allocations. Coastal groundwater allocations are monitored for salt-water intrusion (i.e. salinity). Where intrusions are likely to threaten a water supply announced allocations are made reducing the level of entitlement for a water year. The Office of Groundwater Impact Assessment[20] is also tasked with monitoring groundwater quality in cumulative management areas, largely in response to mineral resource extraction operations.

The water quality of surface water, on the other hand, is considered more in regards to the environmental impact of activities rather than the quality of water made available as an allocation. Source water quality in Queensland is incredibly diverse - with some communities located in the Great Artesian Basin able to source water that requires limited treatment, and others that require complex, multi-barrier solutions. The LGAQ and ***qldwater*** are united in the view that the cost of capital is the biggest driver of service provision to urban water customers, and this is influenced heavily by the water quality of source water. Decisions on capital spending are often specified by the environmental controls placed on discharges of treated sewage, which are a huge cost that is essential to protect water quality. For local governments, a water allocation with a degraded quality of water translates to increased treatment costs and water prices.

Where there is an option, higher quality water allocations would benefit local governments and the communities they supply. In order to drive long-term financial sustainability of communities, water quality has to be a major driver of strategic greenfield investment (and disinvestment). With extreme drought and flooding events significantly affecting water quality for existing sources, there will be on-going capital challenges. The impact on Queensland's unprotected drinking water catchments has not received the appropriate level of attention in water planning activities, and the introduction of Health Based Targets to the Australian Drinking Water Guidelines will create major challenges if regulated as intended.

Water quality is an important aspect of a water allocation that will have impacts on its use. Thus, greater consideration of water quality in planning arrangements should be encouraged.

[20] Office of Groundwater Impact Assessment (OGIA), Queensland Government. Available from: https://www.dnrm.qld.gov.au/ogia/role

Water trading

The LGAQ understands that while a water trading market exists within Queensland, it is not as well developed as in other parts of Australia - notably the Murray-Darling Basin. Water allocations provided to local governments are typically for the purpose of urban water services, which have historically come at no cost to local governments (i.e. pre-existing entitlements). However, Queensland local governments have occasionally sought additional water allocations through water markets to supplement or extend existing allocations. Urban water allocations are not often sold in water markets.

With nearly 500GL[21] out of the existing 10,500GL of water storage in Queensland, local governments consume a relatively small portion of water, but for very high value uses. However, the conservative nature of local government operations often means that some water allocations can be in excess. In circumstances where community demand is less than existing supply, these allocations remain unused. Several local governments have explored the option of temporarily selling excess allocations to enable high value use by others, but are limited by the conditions of the *Local Government Act 2009*. Under this Act a water allocation is considered an asset and must be disposed of through a prescribed process that does not include a water market.

In addition, there have been anecdotal examples of local governments seeking additional water allocations but being priced out of the market. The LGAQ retains some concerns that for urban water services a water market may not provide access to water resources when needed, after reasonable attempts have been made by a local government to manage demand. A key consideration is whether basic water services must compete with other financially capable businesses for limited water resources to support the needs of a community. In other words, the LGAQ does not believe that a community's existence should be left to a market that will give water to the highest bidder.

There is a limited scope for local government participation in water markets, but one that should be considered to improve the efficient use of water.

Environmental management

Local governments typically do not manage held environmental water in Queensland. The LGAQ reserves its right to comment on this issue, but directs the Commission to its submission to the Murray-Darling Basin Authority in its Review of the Northern Basin[22].

[21] Data obtained from the Department of Natural Resources and Mines, and may not include some local government owned entities.
[22] Submission No. 246, Local Government Association Queensland. Murray-Darling Basin Authority. Available from: https://getinvolved.mdba.gov.au/bp-amendments-submissions/documents/51167/download

Rural water services

Local governments are not typically involved in the provision of rural water services. However, as irrigators are also residents within local government jurisdictions, the impact of managing rural water services has flow-on effects to local governments in areas with high levels of irrigation. As described in the LGAQ[23] and Balonne Shire Council[24] submissions on the Northern Basin review, the impacts of removing or mismanaging rural water services can be devastating to rural communities. Notably, the consequences of the Federal Government's water buyback program in the Murray-Darling have been severe for Dirranbandi and St. George, as confirmed by the Murray Darling Basin Authority's social impact review[25].

When land use is changed (e.g. irrigated land becomes dry land) or populations decline, there is a direct link to reduction of the own source revenue for local governments. Less revenue means local governments must evaluate the services they provide, particularly services that are supported by expensive infrastructure such as urban water, and their ability to employ the same level of staff. When changes in rural water services are not made with adequate support for the economic transition for rural communities, the result can have long-term negative financial and social repercussions.

Further, at least 20 local governments in Queensland source water for their communities from the same reservoirs as irrigators, creating potential competition for water resources. As a drought prone state, with 87% of the land area currently drought declared[26], the likelihood of competition for water resources between local governments and irrigators is high in several parts of the State. In practice, this is managed by creating priority levels for water allocations such that those with higher value uses or ability to pay are assured better security of their allocation. The impact on local governments, where urban water supplies are by default given higher priority, is that the cost of the water is greater or intended to be on price pathway towards greater prices (i.e. upper bound pricing goals).

Local governments play an ancillary role in rural water services, but in areas where irrigation is a large part of the community they are likely to be affected by decisions about the management of these services.

What role should independent economic regulators play in the regulation of rural water services?

The Queensland Competition Authority (QCA) is the economic regulator for rural water services in Queensland, and in recent years has made determinations about the pricing of rural water services (i.e. Seqwater[27], SunWater[28], and Burdekin Haughton[29]). While local governments do not take a position on the economic regulation of rural water, in situations where rural and urban water are supplied from the same source there is an overlapping effect of regulation.

[23] Submission No. 246, Local Government Association Queensland. Murray-Darling Basin Authority. Available from: https://getinvolved.mdba.gov.au/bp-amendments-submissions/documents/51167/download
[24] Submission No. 225 Balonne Shire Council, Murray-Darling Basin Authority. Available from: https://getinvolved.mdba.gov.au/bp-amendments-submissions/documents/51065/download
[25] Understanding the effects of water reform on Basin communities and industries. Murray-Darling Basin Authority. Available from https://www.mdba.gov.au/socio-economic-profile-murray-darling-basin
[26] Drought declarations (Department of Agriculture and Fisheries). As at 10 March 2017 there are a total of 43 local governments and three part local government areas drought declared, with 53 Individually Droughted Properties in a further nine local government areas. Available from: https://www.longpaddock.qld.gov.au/queenslanddroughtmonitor/queenslanddroughtreport
[27] Seqwater's Irrigation Prices, Queensland Competition Authority. Available from: http://www.qca.org.au/Water/Rural/Irrigation-Prices-2013-17
[28] SunWater's Irrigation Prices, Queensland Competition Authority. Available from: http://www.qca.org.au/Water/Rural/SunWater-s-Irrigation-Prices
[29] Burdekin Haughton, Queensland Competition Authority. Available from: http://www.qca.org.au/Water/Rural/Burdekin-Haughton

The key implications of this arrangement are most apparent in the economic regulation of SunWater. The previous reviews by the QCA have specifically excluded, by direction from the Queensland Government, the consideration of urban or industrial customers in their assessment of water pricing, despite these customers use water from the same infrastructure. Assessing water pricing for a portion of the users of water infrastructure, without considering the financial contributions and needs of the other users, creates opportunities to recover costs outside of a regulated environment. In other words, in meeting pricing determinations set by the QCA, an entity may increase the costs for other users that fall outside the scope of the QCA review to meet dividend or revenue directives.

While the LGAQ does not believe that SunWater or any other Queensland Government owned water corporation has used the limited scope of the QCA reviews to their benefit, there is a perception of this potential in the arrangement. Independent economic regulators should be empowered to adequately assess and provide advice on appropriate water pricing when appropriate to do so.

Independent economic regulators can play a role in ensuring an objective and balanced view of water pricing, if they are allowed to do so without unnecessary limitations or exclusions in the scope of their review.

Urban water services

In contrast to other Australian States and Territories, urban water in Queensland is primarily the domain of local governments, which are consequently most vested in this question. Of the 75 publicly owned water service providers, 69 are local government owned and/or operated. For reasons listed further below, efficiency of service provision is a key concern.

As a whole, Queensland's urban water services are roughly equivalent to Australia's largest urban water provider, Sydney Water (see Figure 2) across a number of key indicators. Both service roughly the same total population and have a similar number of water connections. The differences, however, are in sharp contrast. Queensland services and area 13,000 larger, have 314 water treatment plants compared to the nine operated by Sydney Water, and have twice the distance of water mains. Because of the comparative density, Sydney Water is viewed to be more efficient, with roughly a third of the cost to provide its services, and resulting in cheaper prices to the communities it services.

	Queensland	Sydney Water
People	4,792,906	4,832,770
Area (sq km)	**1,734,239**	**12,700**
Water Connections	1,820,942	1,876,084
Water Mains (km)	41,487	21,635
Water Treatment Plants	**314**	**9**
Area / Plant (sq km)	5523	1411
Sewerage Connections	1,635,171	1,827,402
Sewerage Mains (km)	33,394	25,085
Sewage Treatment Plants	**277**	**16**
Area / Plant (sq km)	6261	794
OPEX in 2013-14 (non-SEQ)	$2,240M $932M	$1,326M

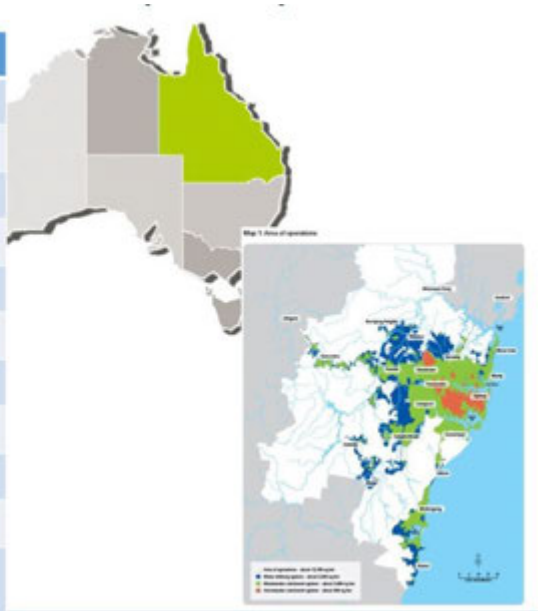

Figure 2 - Comparison of Queensland and Sydney Water Service Providers[30]

While efficiency is an important question for all water service providers, many regional providers in Queensland will never achieve the same efficiency as their urban counterparts. Of the 370 communities in which water services are provided, more than 240 communities have populations less than 1000 people. In addition, there are massive distances between these regional communities and the sources of supplies and trades that support them. For example, Birdsville, the most remote Queensland community with water services, is more than 1000km from Townsville. In comparison, the distance from Sydney to Melbourne is just under 900km. The combination of small populations and distance mean that the efficiency of regional water services must be measured on a different scale.

The levels of service for water in regional communities is often a difficult discussion, because of the high standards for drinking water. When a local government decides to provide a drinking water service they must comply with high standards for drinking water quality, which comes at a cost that is often not negotiable in a regional setting. For example, the costs of materials and supplies, such as chlorine

[30] Based on 2013-14 figures. Data about Sydney Water obtained from the 2014-15 Annual Report – available from: http://www.sydneywater.com.au/web/groups/publicwebcontent/documents/document/zgrf/mdc4/~edisp/dd_078167.pdf

disinfection, are fundamentally different in Brisbane compared to Birdsville. While providers may be able to negotiate with suppliers, or find alternative or more effective ways to disinfect the water – the relative differences in the costs of chlorine will remain. If disinfection is required by the State Government, public expectations, health concerns, or other relevant factors, the cost will form a non-negotiable part of the service and a component of water pricing.

For the 49 Queensland local governments that fail to meet the threshold for national competition pricing[31], water services are more appropriately considered a community service rather than a business activity. The provision of water services in these regional communities is likely never to be profitable, and the full costs of the services will never be affordable for the residents. Yet these communities could not exist without water services. The LGAQ believes that the question of efficiency in the context of regional communities where market failure has always been the norm is misdirected. Of more importance is consideration of the cost pressures placed upon these communities by additional administration, regulation, and inappropriate funding frameworks.

What policy and institutional arrangements are needed in the urban water sector to improve the efficiency of service provision?

The LGAQ supports the views of ***qldwater*** as stated in their submission on this question (i.e. improved decision making on capital investment, innovation, and institutional change) and offers the following additional comments.

1. Federal and State Government coordination

Water providers must deal with multiple agencies that have an interest in their operations at both the Federal and State government levels. At least eight Queensland Government agencies have some role in the provision of urban water services, each of which places an administrative and regulatory burden on local government water providers. While the LGAQ does not question the individual functions of these agencies, the lack of coordination between them has been a cause of concern for some time. The implications of responding to multiple agencies, sometimes to answer the same questions, on staff time are obvious.

Furthermore, the potential for confusion or conflicting direction is greater when more agencies are involved. In Queensland, there are two formal regulators for drinking water, the Department of Energy and Water Supply and Queensland Health. The shared arrangement requires a well-coordinated approach and consistent communications. However, in practice – especially during disasters, as evidenced by the recent Tropical Cyclone Debbie – water providers must respond to requests from multiple agencies on the status of their systems as a consequence of poor coordination and communication protocols across Government Departments.

Local governments are doing their part to improve their own coordination through the Queensland Water Regional Alliance Program (QWRAP). In 2011, QWRAP was developed as an industry-led initiative to respond to the calls for reform and investigate the alternative institutional models recommended for urban water services in regional Queensland. The program receives seed funding from the Queensland Government through the Department of Energy and Water Supply and investment from the LGAQ, ***qldwater*** and participating local governments. These arrangements enable regional coordination that has potential for improved coordination with Federal and State governments and other stakeholders. More information about the program is provided in Appendix 1.

[31] See *Box 1 - Pricing of local government water services* below.

There would be an immediate and substantial increase in efficiency if Federal and State government agencies better coordinated their interactions with local government water providers in Queensland.

2. Structure of funding arrangements

With few exceptions over the last century (1863 to 2009) the Queensland Government has been a funding partner with local governments in delivering urban water infrastructure (see Table 2). During the period of strong development of urban water infrastructure in the 1940s the Queensland Government contributed 33% of all capital costs. However, in 2009 all water subsidies ceased, removing an estimated $140M per year from local government budgets and driving local governments towards competitive 'confetti-style' grant funding. According to LGAQ estimates, approximately 40% of our local governments' budgets now depend on external grant funding programs[32].

Over the last five years there has been a rapid increase in the number of funding programs, which typically entail short application and deliverable periods. The LGAQ has identified at least 25 separate funding programs from the Federal and Queensland Government for which local governments are solely eligible. The various funding opportunities, while welcomed by local governments, have fractured once dependable funding streams and impaired long-term planning. The increase in grant funding has also caused a shift in the proportion of operational staff towards administrative staff, which are now required to apply for and report on the multitude of funding dollars.

The "shovel ready" projects that are funded by these programs have sometimes been more suited to political imperatives[33] than long-term community outcomes and sustainable infrastructure. The previous strategic and business-case driven process for funding infrastructure has been replaced in large part by the support for quick deliverables. The LGAQ believes that these funding arrangements are not encouraging good asset management practices, or that there is a clear process for identifying urban water infrastructure that is most in need of support.

Of particular concern to local government is that only new capital infrastructure is eligible in current funding programs. The result is a financial incentive to replace infrastructure prematurely, or to discourage (i.e. ineligible for funding) exploring alternative management of existing infrastructure to prolong its life. In addition, the criteria for these programs are not specific to water and sewerage infrastructure needs, thus do not prioritise funding to those most in need. Further, the sum of this grant funding in regards to water and sewerage infrastructure averages only $24M per year, far below previous investment by previous governments.

Funding arrangements should provide incentives for efficient operations and management. As interested stakeholders and partners in urban water infrastructure, the Federal and State governments should review and reform their funding to local governments in Queensland.

[32] 5512.0 - Government Finance Statistics, Australia, 2014-15, Table 333 General Government – Local – Queensland. Available from: http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5512.02014-15?OpenDocument

[33] Royalties for the regions (Report 4: 2015-16), Queensland Audit Office. Available from: https://www.qao.qld.gov.au/reports-parliament/2015-16-royalties-regions

Table 2 - Queensland Government subsidies to local governments for urban water infrastructure

Period	Applicable Subsidy Assumed	Notes
Prior to 30/06/1935	**50%** on all works	The subsidy rate applicable from 1932-1935 is presumed to apply to all assets constructed prior to 1932.
01/07/1935-30/06/1937	**25%** on all works	Subsidy was applied to 50% of expenditure on direct wages only, and it is assumed that direct wages accounted for half of construction costs at the time.
01/07/1937-31/10/1938	**16.65%** on all works	Subsidy was applied to 33.3% of expenditure on direct wages only, and it is assumed that direct wages accounted for half of construction costs at the time.
01/11/1938-30/06/1942	**20%** on all works	Subsidy was applied on 1/5 of annual interest and redemption costs, but it is assumed for simplicity that this equates to a 20% subsidy on works constructed during this period.
01/07/1942-30/06/1944	**0%** on all works	
01/07/1944-30/06/1960	**33.3%** on all works	A range of different subsidies were offered during this period and it is assumed that 33.3% provides a reasonably accurate representation of the average subsidy that may have been received.
01/07/1960-30/06/1969	**50%** for new water supply schemes to towns with no existing scheme **33.3%** for major augmentation at source of supply, development of supply from new source, works involved in delivering increased supply **20%** for other water supply works excluding reticulation (e.g. reservoirs, pumping and treatment plants) **0%** for reticulation	In the absence of information pertaining to the establishment of new schemes, the following assumptions have been made relating to asset classifications: • Reservoirs, pump stations and trunk mains receive a subsidy of 20%; and • No subsidy on reticulation infrastructure.
01/07/1969-30/06/1981	**33.3%** for new water supply schemes to towns with no existing scheme, major augmentation at source of supply, development of supply from a new source or works delivering increased supply **0%** for other works including reticulation and installation of meters	In the absence of information pertaining to the establishment of new schemes, the following assumptions have been made relating to asset classifications: • Dams, intake structures, treatment plants and selected reservoirs (raw/clear water storage and those on trunk mains connecting the main scheme to smaller rural schemes to provide continuity of supply) receive a subsidy of 33.3%; and • No subsidy on pump stations, pipes and distribution reservoirs.
01/07/1981-30/06/1985	**20%** for new water sources and treatment plants **0%** on other works	Intake structures, treatment plants, trunk mains and selected reservoirs are assumed to be subject to the 20% subsidy during this period.
01/07/1985-30/06/1988	**30%** for new water sources and treatment plants **0%** on other works	Intake structures, treatment plants, trunk mains and selected reservoirs and pump stations are assumed to be subject to the 30% subsidy during this period.
01/07/1988-30/06/1996	**20%** for new water sources and treatment plants **0%** on other works	Dams, intake structures, treatment plants, trunk mains and selected reservoirs are assumed to be subject to the 20% subsidy during this period.
01/07/1996-31/12/2008	**40%** for new water sources and treatment plants **0%** on other works	Dams, intake structures, treatment plants, trunk mains and selected reservoirs, pump stations and flow meters are assumed to be subject to the 40% subsidy during this period.

Source: AEC, Queensland Government (2001)

3. Shared-risk approach to innovation

The role of technology, big data, and 'smart' approaches are becoming common within local government, especially urban water. Several Queensland local governments have demonstrated that there are large financial incentives to better managing urban water services (see response to demand management approaches question below.) Not only is innovation possible in local government, it is happening on the ground and saving money now.

Nonetheless, there are many barriers to innovation in Queensland. Within Australia, and governments in particular, there is a weak appetite for risk – especially when it is funded by public dollars. New technology, ideas, or processes must first have a proven record of accomplishment before they are considered. Without a champion that is willing to push for a new approach, many valuable and more efficient ideas are passed over. Sharing this risk between stakeholders (i.e. Federal and State governments, private industry, joint local government approaches) could be one solution to resolving this impasse.

Another barrier is legislation that imposes requirements that prevent or dissuade local governments from adopting innovative ideas. As mentioned previously, multiple regulators are often involved in any aspect of water for which innovation is being considered, and the alignment of regulatory agreement can be challenging at best. Where one regulator may have no objection to an innovative approach, this may not be the case for another. For example, the use of recycled water is preferred in Queensland by environmental regulators, but the concern about public health risk by health regulators requires substantial treatment that comes at great costs. These extra costs often dissuade local governments, or they are overly conservative in the treatment of wastewater to ensure minimal public health risks. Flexible and adaptive legislative arrangements are needed to consider multiple and non-conventional uses of water or systems that support the supply of water.

For many local governments, attracting a workforce that can support innovation is another barrier. This is most evident in the challenges of acquiring and interpreting large volumes of data. Rural and remote local governments, already struggling to attract workers with basic skills, have a similar if not greater challenge.

Companies that easily attract innovative workers (e.g. Google, Tesla, Amazon, etc.34) do so largely by reputation and a culture that encourages such thinking. While there is a vast opportunity for innovation within urban water services, much work must be done to change the perceptions of the future workforce that must decide where to employ their skills.

Encouraging innovation in urban water services will improve their efficiency, but will require better management of the financial and reputational risk, adopting a more flexible legislative framework that is mindful of innovation, and attracting an innovative workforce.

What approach should be taken to price regulation in the urban water sector? Is there a need for greater consistency in price setting approaches across different jurisdictions? Do current pricing practices promote investor confidence?

For most local governments, there are great external pressures (i.e. political and social) to keep water prices low. Therefore, any attempts at price regulation are likely to force prices higher in the face of public expectation for an affordable essential service. Indeed, this has been the case in the Queensland Competition Authority's review of bulk water prices in Southeast Queensland[35]. Further, water prices are affected by the local context in which water services are provided. Thus, consistency of principle-based pricing practices and not the final prices should be the ultimate goal.

Local government in Queensland believes that establishing appropriate policies and standards for good rule and governance is a role of Federal and State governments. There are several examples where policies and standards for water pricing have been created (e.g. ACCC's work to establish and implement the Water Charge Rules in the Murray-Darling Basin, the National Water Initiative[36] and the QCA[37] have each proposed their own pricing principles). Noting there are several different guidance documents for water pricing, there should be consistency between them where possible. The balanced and holistic application of all relevant principles should encourage more consistent regulatory approaches.

In practice, the Queensland Competition Authority's review of urban water services have come at a cost to urban water service providers that has not been compensated by efficiency gains. Regulatory oversight without a driver (e.g. restrain monopolistic practices) or encouraging greater efficiency only adds to the total cost of the service. Further, attempts at regulation have duplicated what councils inherently do and economic regulation cannot be implemented in isolation or without consideration of the unique governance in Queensland. Clearly identified triggers for regulatory oversight or intervention, or a staged regulatory intervention should be explored to better align with pricing outcomes.

The LGAQ refers the Commission to the ***qldwater*** submission on this matter, and supports their comments in full.

While local governments have not been the target of recent economic regulation, the LGAQ questions the value of such regulation when existing pressures already constrain costs and prices.

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[34] The World's Most Innovative Companies, 2016 ranking. Forbes Online. Available from: https://www.forbes.com/innovative-companies/list/#tab:rank

[35] Seqwater: bulk water price review. Queensland Competition Authority. Available from: http://www.qca.org.au/Water/Urban-bulk-water/SEQ-bulk-water

[36] Natural Resource Management Ministerial Council, National Water Initiative (NWI) pricing principles. http://www.environment.gov.au/topics/water/australian-government-water-leadership/national-water-initiative/national-water

[37] Queensland Competition Authority, Pricing Principles. Available from: http://www.qca.org.au/Water/Queensland-wide-issues/Water-Pricing-Principles

Box 1 - Pricing of local government water services

The *Local Government Act 2009* regulates local governments in Queensland, and in particular, their ability to set rates and charges. The ability to charge for water services, as a utility charge, is given under section 94. Under the *Financial Accountability Act 2009* the Queensland Audit Office conducts annual audits of local governments to report on compliance with legislative requirements and required accounting practices.

In addition, the Act requires any local governments that are operating a 'significant business activity' to comply with National Competition Policy Agreements and competitive neutrality principles. A business activity is significant if it

> *"…is conducted in competition, or potential competition, with the private sector (including off-street parking, quarries, sporting facilities, for example); and meets the threshold prescribed under a regulation."* (s.43 of the *Local Government Act 2009*).

The current threshold for combined water and sewerage businesses in Queensland is $13.3M[38] for operating expenditure in the previous financial year less depreciation and any loan redemption payments – among other moderating factors. In the 2014-15 financial year there were 23 out of 77 local governments that were above this threshold.

For water services that have been declared a monopoly business activity[39,40], Queensland's main oversight for water pricing is through the QCA. The QCA reviews water prices for bulk water and retail water entities when they are directed by referral from the Minister (i.e. Treasurer), with each referral indicating the scope of the review. To date the QCA has been directed to conduct more than a dozen reviews of water prices, including both State-owned bulk water entities, the GAWB, and all of the Southeast Queensland retail entities - which are owned or operated by local governments. The QCA, upon completing its review, then makes recommendations to the State or Local Government as required, which may then choose accept or reject them.

Is there a case to increase the involvement of customers in regulatory decision making, as is commencing in Victoria? If so, what is the best way to do this?

Customer participation in levels of service and standards is included in the *Water Supply (Safety and Reliability) Act 2008*[41] in Queensland. Water providers are required to engage with their customers to ensure that services are appropriate and meet their needs. As local government is the closest level of government to the community, many of Queensland's urban water service providers already have close relationships with their customers, which may not be the case in other more centralised services in other states.

The LGAQ conducts a market research survey of Queenslanders every two years, since 1997[42], to assess the perception of services provided by local governments. Respondents are asked to rate services on a 5-point scale for their importance and their performance. Consistently water and sewerage services rank as

[38] Department of Infrastructure, Local Government and Planning, Bulletin 01/14. Available at: http://www.dilgp.qld.gov.au/newsletters-and-brochures/bulletin-01-14.html

[39] QCA Final Report "Criteria for deciding whether to declare a candidate water supply activity to be a monopoly water supply activity." Available at: http://www.qca.org.au/getattachment/92f064f8-bfa1-454b-8c91-7d8d03fc6ee9/Criteria-for-the-Identification-of-Monopoly-Water.aspx

[40] Under the *Queensland Competition Authority Regulation 2007* (s 2A), the following are declared as monopoly business activities: Bundaberg Regional Council, Cairns Regional Council, Gold Coast City Council, Logan City Council, Mackay Regional Council, Queensland Urban Utilities, Redland City Council, Rockhampton Regional Council, Toowoomba Regional Council, Townsville City Council, Unitywater.

[41] See Disvision 3, Customer Service Standards.

[42] Research Report of the 10th Study for Community Satisfaction Benchmarking, Morton Consulting Services, June 2015. Available from: http://lgaq.asn.au/community-satisfaction-survey

the most important services with very high levels of performance (see Table 3). The surveys also find that residents in rural councils have a much better appreciation for local government services than those in metropolitan councils – presumably because the communities are smaller and there are more direct relationships among all residents.

Table 3 - Community assessment of basic services / infrastructure (2015)

Responsibility Areas	Importance		Performance		Share of Optimum
	Mean	Rank	Mean	Rank	%
Sewerage	4.28	2	3.89	1	77.8%
Waste Management	4.24	3=	3.87	2	77.4%
Libraries & other Information Access	4.04	15=	3.86	3	77.2%
Water Supply	4.31	1	3.81	4	76.2%
Community Safety	4.08	13=	3.68	6	73.6%

*Responsibility Areas shown in shading were rated in 'top ten' in overall importance

Arguably, the local government water sector in Queensland (and NSW) has stronger ties with its customers than the utilities in other states because of the local government links, the smaller size of most service providers, and their co-location with customers. This greater engagement with customers in Queensland often results in higher sensitivity to price changes, and maintains pressure on local governments to minimise costs where possible. Indeed, this argument is often claimed as a dis-benefit of greater horizontal aggregation of water and sewerage services. Increasing customer engagement may be the natural consequence of centralised services that have distanced themselves from the communities they serve.

How can the level of competition in the provision of urban water services be increased?

The LGAQ echoes the comments of ***qldwater***. Namely, the competition for the urban water sector is typically referred to in two major forms:

(a) Competition by comparison through industry benchmarking. There are presently several tools that enable this (see page 6). Comparisons are particularly active among larger utilities that set operational targets based on National Performance Reporting. As the DEWS mandatory Key Performance Indicator process matures, it is likely to deliver further benefits. The LGAQ is also strongly encouraging councils to allow greater public disclosure of comparative reporting.

(b) Increased private sector participation. There is an assumption that pricing reform will create incentives that will attract private investment in order to redress the problem of under-funded water and sewerage assets. The need for greater infrastructure investment and the importance of market-based solutions are both real, but linking them through pricing reform is unlikely to succeed as this will only create a positive pressure on prices that will likely run counter to community sustainability. The LGAQ believes that community sentiment will support a cost-recovery model of urban water services, if community service obligations are available where warranted, but will not support a shareholder profit model.

Competition in some areas is simply not possible due to constraints on water sources and the cost to deliver the services. Further, the commercialisation of basic water services may drive greater dependence on community service obligations as the pricing for the services increase. For example, bottled water markets are worth about $500M per year in Australia, providing a product that is marked up 2000% from an equivalent service provided through tap water[43]. While an increasingly larger market draws from the same limited water resources as existing community, agricultural, and industry water users the availability will decrease.

The LGAQ questions the aim of increasing competition for urban water services, when the pricing of services in many areas are already artificially low through social and political pressures. Greater clarity about the drivers for competition and the outcomes of promoting it for urban water are needed.

Do water and wastewater services delivered to regional and remote communities, including Indigenous communities, comply with relevant public health, safety and environmental regulations? If not, what policy remedies might improve performance?

Under current arrangements, all water providers, including Indigenous communities, must describe their management and operations through Drinking Water Quality Management Plans. DEWS, as the water regulator, has received and approved plans for every water provider in Queensland. As a component of the requirements, water providers must report incidents that have the potential to affect the ability to deliver clean and safe water. According to a recent newsletter by the Department there were 148 drinking water quality incidents in 2016, which were reported from providers across the Queensland[44] for both Indigenous and non-Indigenous communities.

Notwithstanding, Indigenous communities have many challenges in providing urban water services. While infrastructure has been well funded in the past, many of the infrastructure solutions have been developed by external consultants or contractors that design industry standard solutions that are not necessarily fit-for-purpose for the community. Key to this challenge is the limited pool of staff available to operate the systems. Similar to many other rural and remote communities, attracting qualified staff is a constant challenge.

Concurrently, the standards for water quality have increased substantially in the last 20 years. For example, the Australian Drinking Water Quality Guidelines published in 1996 had only 108 water quality characteristics, but currently has 351[45]. The imminent implementation of health based targets will place additional pressures across the urban water industry to provide even higher quality water. As water quality standards increase the operations and practices that were appropriate years ago become obsolete and insufficient. Realistically, there is a practical challenge for many rural and remote communities, including Indigenous communities, to transition towards higher standards without financial and training support.

Many of the water quality standards are conservative, having risk factors built into the standards. The development of health based targets represents a shift from a 'zero risk' or no contamination expectation, to an acceptable risk approach. The fact that a hazard has been identified does not mean that it poses a significant risk to water safety or management, nor is it possible to have zero risk. Instead, management

[43] Bottle vs tap, Choice.com. Available from https://www.choice.com.au/food-and-drink/drinks/water/articles/bottled-water
[44] The Refill, Editiion 2. Queensland Government.
[45] Australian Drinking Water Quality Guidelines, National Health and Medical Research Councils. Available from https://www.nhmrc.gov.au/_files_nhmrc/file/publications/nhmrc_adwg_6_version_3.3_2.pdf

systems should work on the concept of "acceptable risk" that informs water or wastewater management. Further, measures should address activities that encourage better capacity, planning, and coordination. In Queensland, local governments are working towards this through regional collaboration.

Given the current regulatory framework set against the backdrop of increasing water quality standards, the LGAQ believes that it is becoming impossible for any provider of water and wastewater services to have services that are completely compliant with all the relevant regulations. For regional, remote, and Indigenous communities the challenge is growing, and the 'zero-risk' mentality of regulation must be reassessed.

Do the processes for determining public health, safety and environmental regulations applying to urban water providers promote cost effective and targeted regulations? Do the various policy making and regulatory bodies have clear roles and responsibilities?

In general, the consideration and implementation of regulations appear to be more reactive to perceived public outrage or politics than cost effectiveness. From the concern about the Great Barrier Reef, occurrence of Legionella in hospitals, to the perceptions of potential environmental impacts, most regulation that has been implemented in Queensland has not fully considered the costs associated with them. As a consequence, urban water service providers face very costly infrastructure solutions with high rates of diminishing returns. The complete reversal on the fluoridation mandate by the Queensland Government in late 2012, as an example, has left costly infrastructure stranded within local governments.

Sewage treatment plants, as an example, can have immediate and substantial environmental improvements when progressing from no treatment to basic treatment. However, the cost of more advanced treatment to remove the remaining traces of phosphorus and nitrogen come at large cost that often results in minimal improvements for the environment given the lack of treatment for other sources. Regulators fixated on the standard or criteria rather than the outcomes blindly drive compliance without regard for the financial consequences.

While the Queensland Government is required to assess the financial impacts of legislation, many times this process is expedited or exempted to meet political agendas or public appeasement. The LGAQ has often expressed concern over unreasonable consultation timeframes, and quickly moving policy development that excludes basic considerations for the range of stakeholders affected (i.e. non-SEQ local governments).

As mentioned previously (page 21), there is a various mix of regulatory bodies that have overlapping and sometimes confusing roles. While a rationally coordinated approach to engagement and regulation may never be a reality, there are many opportunities to improve the current arrangements.

Thus, regulations for urban water providers are often not cost effective or targeted, and there should be greater consideration of the effectiveness of present arrangements for policy making and regulation.

What is the importance of integrated water cycle management? Are roles and responsibilities in relation to this clear?

To meet the future challenges in water resource management, an integrated water cycle approach is

needed. The LGAQ supports efforts to better incorporate this approach across all urban and rural activities. However, policy drivers and funding are not fully developed, and could be used to better implement such management into urban water services.

How can demand management approaches such as water restrictions and water use efficiency measures best contribute to the efficiency of urban water services?

The LGAQ and ***qldwater*** are united in recognition of the value of demand management and efficiency measures. As referenced previously, Mackay Regional Council has demonstrated in real terms the value of such measures, and the huge financial savings that can be realised. The LGAQ would strongly encourage the Commission to explore Mackay Regional Council's automated meter program as an exemplar of how these approaches can achieve greater efficiency.

To echo ***qldwater's*** comments, communities should aim for efficiency rather than conservation, and water use should be considered as an overall level of service issue with communities using what they can afford and access while maintaining water security. Additionally, incentives or targeted grants programs could be an effective tool in driving appropriate behaviours of water providers and other relevant stakeholders.

Achieving reform

Should further water reform be pursued through an improved NWI? How can policy impetus be best generated?

The NWI is now the only consistent national mechanism to keep the issue of water reform highlighted, and is thus essential. However, the lack of constitutional power means that impetus is generated primarily through funding incentives to drive change and these have been lacking for some time, particularly for urban water. Regardless of the institutional arrangements in each Australian jurisdiction, there is need for considered and objective oversight and the NWI and triennial review is well placed to fulfil this role if it is not overly swayed by the interests and arguments promoted by any one jurisdiction.

The 2011 Productivity Commission review was instrumental in driving water sector reform in Queensland. While other reports selected a preferred model from one Australian jurisdiction and tried to apply it across all of the others, the Commission's review considered fit-for-purpose approach that was predicated on agreed outcomes. Rather than a rigid adherence to academic conceptions of market forces and generic rules about productivity across utilities, the review opened the door for better understanding of models that maximised efficiency for diverse communities across the country. This approach allowed and generated the large Queensland response embodied in the Queensland Water Regional Alliances Program.

QWRAP represents a collaboration between state and local governments to investigate optimal models for regionalisation across the state. It has been immensely successful in maintaining this discussion now encompassing 30 councils in five regions representing over 65% of the regional population and over 55% of the area of Queensland. It has grown through two successive changes of State Government and survived local government elections and de-amalgamations.

However, there are limits to the ability of voluntary politically-driven projects to initiate change without the impetus of external drivers. While QWRAP will continue to be successful in bringing councils together as

regional Alliances it cannot generate step-change in institutional arrangements without external incentives for change. This is not necessarily a fault of the Program or the political decisions that underpin it, but rather the uncertain risk of major change entered into without a significant external justification. Unfortunately this means that despite an ongoing increase in strategic regionalisation and collaboration on institutional improvements, significant change will await a significant external trigger likely to be based on financial circumstances.

Contacts

Should further information on any aspect of the Association's response be required, please do not hesitate to contact Mr Arron Hieatt, Principal Advisor – Water and Sewerage Infrastructure on 3000 2237 or arron_hieatt@lgaq.asn.au

Appendix 1 – LGAQ Policy Statement 2016 extract

8.5 Water Supply and Sewerage

8.5.1 Institutional Arrangements

8.5.1.1 Local government recognises that water is a resource that should be shared equitably across each region through institutional arrangements that best facilitate efficient service delivery and resource use.

8.5.1.2 The State Government must ensure that no community is substantially disadvantaged in terms of basic access to, and price of a reasonable supply of potable water, as a community service obligation.

8.5.1.3 Local government believes that water demand and supply planning across the State, including the establishment of adequate levels of service provision to the community, should be led by the State Government, with active involvement of local government as a key stakeholder. There should be continued engagement with local government in the design and implementation of the State Government's strategy for Queensland's water sector.

8.5.1.4 Where reform of current institutional arrangements is considered necessary to enhance security, sustainability and efficiency of water services, there should be full consultation with the LGAQ and all local governments likely to be affected by any proposed changes.

8.5.1.5 Local government believes that any change in current water institutional arrangements should seek to build on existing roles, responsibilities and relationships reflecting the existing partnership approach between the State and local governments and amongst local governments.

8.5.1.6 Where regional water supply schemes across a number of councils are necessary, joint local governments or local government owned corporations are the preferred approach rather than a separate Statutory Authority.

8.5.1.7 The role of individual councils in water retailing should be maintained in any changes to institutional arrangements.

8.5.1.8 Where any water infrastructure is subsumed into new bulk supply institutional arrangements, there should be a guarantee of full compensation for current owners.

8.5.2 Funding Arrangements

8.5.2.1 Local government will advocate that the Federal and State governments, through COAG, must recognise the need for greater capital investment in water infrastructure to meet future needs and foster regional development.

8.5.2.2 Local government requires openness and transparency in assigning externality charges to water providers. Externalities include environmental costs as well as water resource planning and management costs.

8.5.2.3 Local government will advocate for the return of revenue raised from National Water Agreement imposed externality charges to ongoing investigations and planning as well as investment in future water infrastructure needs including dam safety upgrades.

8.5.2.4 Local government will seek contributions to the cost of long term regional water infrastructure through instruments such as the development of infrastructure charges plans.

8.5.3 Pricing Regime

8.5.3.1 Local government accepts that significant local government water retailers should be subject to price oversight by an independent body. However, retail water pricing must remain the responsibility of each water retailer, recognising the varying circumstances that exist.

8.5.3.2 In setting retail prices, local government recognises the need for pricing regimes which encourage efficient use of water resources. This will generally be achieved by use of two-part tariffs including, where appropriate, inclining block tariffs.

8.5.3.3 Where separate institutional arrangements exist for bulk water supply within a region, a common 'postage stamp' approach to pricing is generally preferred by local government rather than one based on differential nodal pricing.

8.5.4 Operations

8.5.4.1 Local government is committed to best practice in water use, implementation of sustainable urban water management and development of strategies to:

- Reduce demand for water to improve the efficiency of use;
- Reduce supply losses;
- Increase the re-use of water;
- Increase use of stormwater for urban and household demands; and
- Improve community awareness of water management issues.

8.5.4.2 Where regional arrangements for bulk water supply exist, local government accepts that there should be common rules set for supply restrictions and minimum service levels by the body responsible for water supply planning.

8.5.4.3 Time of day tariff structures for electricity should be available to allow local government to minimise operating costs of water supply and sewerage systems.

8.5.4.4 Local government is committed to rationalising the system of water information reporting by local governments to reduce inefficiencies, eliminate duplication of reporting mechanisms and improve information for water planning and security.

8.5.5 Sewerage Management

8.5.5.1 Local government recognises that it has primary responsibility outside of south east Queensland for the collection and treatment of wastewater and disposal of treated wastewater in urban areas.

8.5.5.2 Local governments acknowledge that wastewater should be treated in accordance with legislative requirements or to a 'fit for purpose' standard provided due consideration is given to the social, economic and financial impacts on communities in addition to preventing significant adverse impacts on receiving environments.

8.5.5.3 Any increases in the standard of treatment required for wastewater should be phased in over an appropriate period and be accompanied by an appropriate level of State or Federal government funding.

8.5.5.4 Local government fully supports the beneficial reuse of 'fit for purpose' treated wastewater as a strategy to mitigate the adverse environmental effects of releasing treated wastewater to waterways and as a strategy to achieve sustainable urban water use.

8.5.5.5 Decisions relating to the options pursued for the reuse of effluent should remain within the jurisdiction of local government.

8.5.5.6 Local government supports a State Government licensing regime that is based on mass loads of nutrients released to receiving environments.

8.5.5.7 The reuse of greywater in sewered areas should only occur where local government can be satisfied that the public health implications and soil and climatic conditions can be appropriately managed.

Appendix 2 – Queensland Water Regional Alliance Program (QWRAP)

Queensland
Water Regional Alliance Program

QWRAP is an industry-led initiative to investigate regional collaboration on water and sewerage services in regional Queensland. The program itself is a collaborative effort among the LGAQ, ***qldwater***, the Queensland Government (through the Department of Energy and Water Supply) and 32 participating councils. The program provides a formal opportunity for councils to consider collaboration and alternative regional approaches for managing services.

QWRAP has resulted in the formation of four regional Water Alliances, as well as completion of numerous successful regional initiatives and a range of statewide activities and research projects.

Development of QWRAP

LGAQ and ***qldwater*** have been working jointly on regional collaboration initiatives for the urban water industry since 2006. This activity was brought into strong focus by council amalgamations in 2008, and SEQ water reform in 2007-2013. In 2011, further impetus for collaboration was made with the release of three national reviews of the urban water industry that were critical of Queensland and New South Wales water sectors.

LGAQ and ***qldwater*** responded by developing the QWRAP and partnering with the Queensland Government, which provided funding support averaging $250,000 per year between 2011 and 2015. In July 2015, the Queensland Government continued funding for QWRAP at $600,000 per year until June 2018, and expanded the funding to support five regions.

As well as supporting the program, state funding provided a 'bid-pool' that could be accessed by participating councils to initiate high priority projects identified through their QWRAP collaborations. Access to the bid pool requires matching funding from participating councils but to date, council contributions have far exceeded bid-pool contributions in recognition of the broad savings and community benefits provided by collaborative projects.

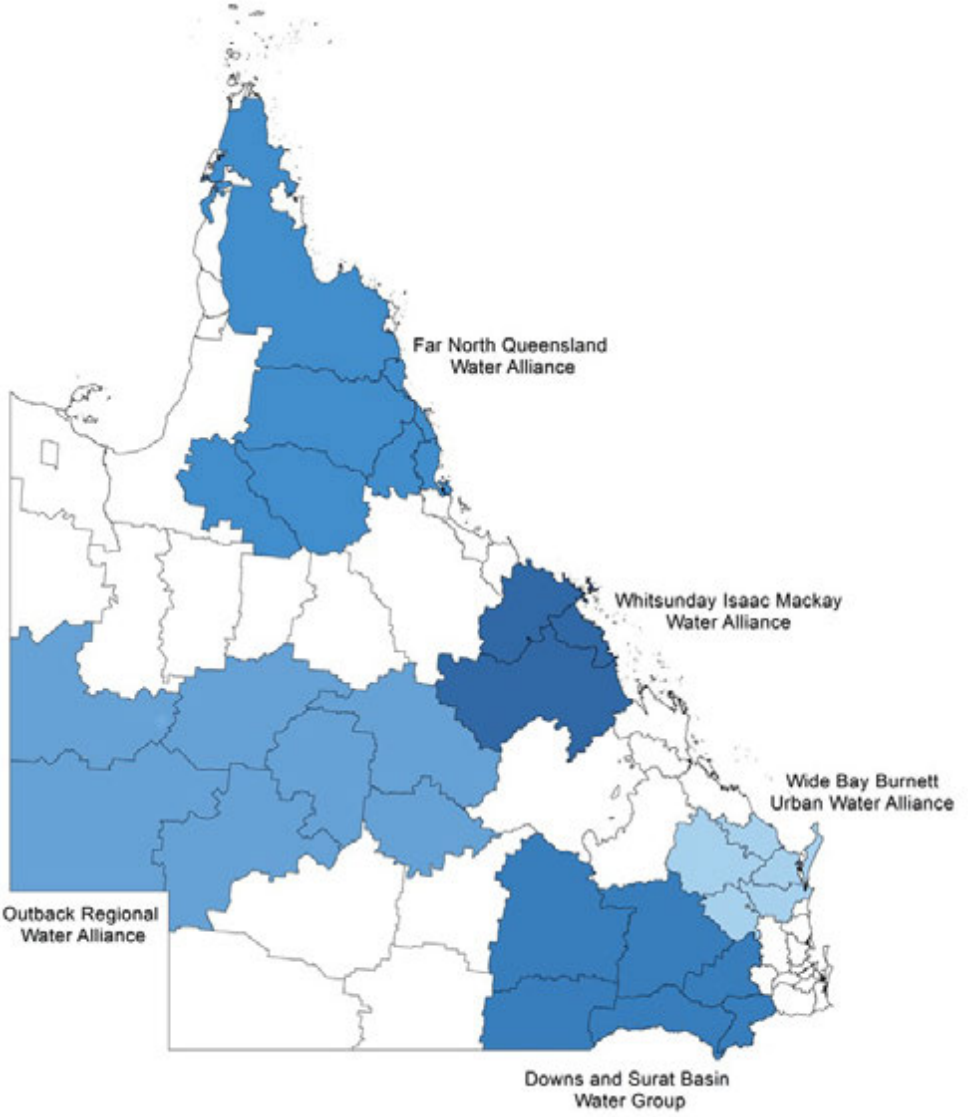
QWRAP Regions

Initially, three pilot regions self-selected to take part in QWRAP. A fourth group (based on the Whitsunday Regional Organisation of Councils) joined the program as part of the extension of the project in October 2013. Three of these groups have formalised regional water alliances. A fifth group based around the Downs and Surat Basin area commenced QWRAP discussions in 2015.

Statewide Activities and Research

As well as a range of communication activities, QWRAP has undertaken research into a series of issues to inform council deliberation about regional approaches and the importance of reform of the urban water industry. An important question raised by many local governments is "why is reform recommended and is it really necessary?" These questions have been addressed in a series of research papers. A list of publications from QWRAP is provided below along with the summary of the key research outputs.

2016 - Modelling Water Demand.- Research Report 4: Modelling Water Use in Regional Queensland.
2016 - QWRAP Progress Update – September 2016
2015 - Cost Drivers and KPIs. Research Report 3: Review of financial indicators and cost drivers for the Queensland urban water industry.
2015 - Review of Sustainable Models. Research Report 2: Review of urban water reform in Australia and overseas.
2011 - QWRAP Scoping Paper. Research Report 1: Review of drivers of urban water reform and alternative institutional models.



Downs and Surat Basin Area

Area: 167,358 km² (10% of Queensland)
Population: 265,518 (16.9%)
Councils: Balonne, Goondiwindi, Maranoa, Southern Downs, Toowoomba and Western Downs

WTPs: 51
Connections: 94,186
Length of Mains: 3,003 km

STPs: 35
Connections: 72,867
Length of Mains: 1,978 km

Far North Queensland ROC

Area: 248,845 km² (15% of Queensland)
Population: 248,910 (16.6%)
Councils: Cairns, Douglas, Mareeba, Tablelands, Cassowary Coast, Cook, Croydon, Etheridge

WTPs: 43
Connections: 106,255
Length of Mains: 3,993 km

STPs: 15
Connections: 91,012
Length of Mains: 1,904 km

Outback Regional Water Alliance

Area: 396,638 km² (23% of Queensland)
Population: 46,197 (2.9%)
Councils: Barcoo, Barcaldine, Blackall-Tambo, Boulia, Diamantina, Longreach and Winton

WTPs: 9
Connections: 5,742
Length of Mains: 348 km

STPs: 10
Connections: 4,227
Length of Mains: 158 km

Wide Bay Burnett Water Alliance

Area: 48,567 km² (3% of Queensland)
Population: 292,573 (18.7%)
Councils: North Burnett, Bundaberg, Gympie, South Burnett, Fraser Coast

WTPs: 34
Connections: 93,312
Length of Mains: 3,184 km

STPs: 28
Connections: 77,006
Length of Mains: 2,153 km

Whitsunday-Isaac-Mackay Water Alliance

Area: 90,362 km² (5% of Queensland)
Population: 152,644 (9.7%)
Councils: Whitsunday, Isaac and Mackay

WTPs: 22
Connections: 66,354
Length of Mains: 1,961 km

STPs: 11
Connections: 58,337
Length of Mains: 1,453 km

10 reasons councils join QWRAP

1. Ever-increasing financial constraints (i.e. the removal of subsidies and greater Federal and State emphasis on regional funding) are driving councils to find more efficient ways to provide services.
2. Management and eventual replacement of ageing infrastructure comes at a cost that can be prohibitive for individual councils, especially for small communities with a limited rates base.
3. Skills shortages and the retirement of existing staff require broader strategies to sustain regional workforces.
4. Participation provides a way to ensure self-determination by local governments in any future reform of water and sewerage governance.
5. Regional approaches enhance negotiating power with regulators (e.g. DEWS and DEHP) and politicians.
6. Material savings (e.g. through economies of scale) have been achieved in all regions participating in QWRAP.
7. Regional resourcing and consultancies have led to improvements to customer service, safety and reliability of water supply services.
8. Variable climate conditions in Queensland are highlighting the need for councils to improve water security and customer messaging at a regional level.
9. A cooperative approach gives councils an opportunity to build on regional strengths, and to jointly develop specialised skills that would be unviable for individual councils.
10. The regulatory focus on benchmarking and performance reporting are identifying and reporting on areas of underperformance, which can put social and political pressure on councils to improve services.

Financial Benefits

- Groups can better leverage state investment, particularly through enhanced access to regional funding
- Material savings in the six figure range were demonstrated in first three years of the program (e.g. $130k ORWA, > $100k WBBROC group)
- Potential savings are likely to be greater (e.g. $10-40k estimated for each of several ORWA projects).
- The Queensland Government has made funding available through QWRAP to assist with joint activities and projects.
- QWRAP funding contributes to the employment a regional coordinator to drive progress with program activities and cooperation.

Immediate benefits for the Queensland Government

- QWRAP is clear evidence of the Government's support for regional communities.
- QWRAP supports the Government's aims and objectives (e.g. State Infrastructure Plan and Water Strategy)
- The program also encourages regions to move towards best practice through shared experiences and optimising costs.
- Improved performance and governance will reduce the need for regulatory intervention.
- Regional approaches to water supply services improve the perception of safe, secure, and sustainable services, which is more likely to attract economic development and greater investment.
- Regional groups offer a means for more efficient communication with entire regions.
- The program provides a critical mass of support to regional councils to respond to key customer and other water service issues.
- The learnings and experiences of each of the regional groups can be translated to other areas of Queensland that lack capacity.

Potential Future Benefits

- QWRAP is a viable and readily available mechanism for equitable capital funding for water and sewerage infrastructure.
- The program is a way of promoting and increasing PPPs in regional Qld on terms negotiated by councils.
- Preparations undertaken through QWRAP improve the readiness for reform, if it happens, to avoid wastage seen by hasty change in other jurisdictions (e.g. SEQ).